IN THE SPECIFICATION:

Paragraph beginning at line 6 of page 1 has been amended as follows:

In many of the existing information reproducing apparatuses, reproduction ~~has~~ is being made ~~on~~ of information recorded on a ~~reproduction-exclusive~~ read-only optical disc ~~represented~~ such as ~~by~~ CDs and CD-ROMs. For example the CD on its surface is recorded, as concave-and-convex formed information, with pits having a size nearly a wavelength of laser light to be used during reproduction and a depth of about one-fourth of that wavelength. The phenomenon of light interference is utilized in reproducing information.

Paragraph beginning at line 9 of page 2 has been amended as follows:

In reproducing information recorded on the read-only ~~reproduction exclusive~~ optical disc, a lens optical system is used which has being employed for the conventional optical microscope. Due to limitation by light diffraction, it is impossible to reduce the spot size of laser light less than a half wavelength. Consequently, in the case of further increasing the information recording density of the optical disc, the pit size or track pitch is reduced and hence the

information recording unit is reduced to a smaller size than the laser light wavelength. Thus, information reproduction is not feasible.

Paragraph beginning at line 18 of page 4 has been amended as follows:

Accordingly, the utilization of near-field light makes possible information reproduction (reading) from the information recording medium recorded exceeding the recording density on the conventional information recording medium.

Paragraph beginning at line 4 of page 5 has been amended as follows:

In the conventional hard disc technologies, there is a ~~fling~~ flying head technology to bring a recording head and a recording medium close to each other. The float amount of the flying head from a recording medium surface is about from 50 nano-meters to 100 nano-meters, which value is too great to realize information reproduction utilizing near-field light.

Paragraph beginning at line 10 of page 5 has been amended as follows:

On the other hand, the scanning probe microscopes (SPM) represented by the scanning tunnel microscope (STM) or

atomic force microscope (AFM) are used in order to observe nano-meter order microscopic regions on sample surfaces. The SPM uses a tip sharpened probe to detect a physical amount, such as a tunneling current or inter-atomic force caused between the ~~robe~~ probe and the sample surface, whereby scanning is made on the sample surface in proximity to the sample surface to obtain high resolution image.

Paragraph beginning at line 24 of page 5 has been amended as follows:

In this case, however, there arises a need to detect by respective unique mechanisms a physical amount replaced by information recorded on the recording medium, or near-field light, and a physical amount required to effect proximity control of the probe, or inter-atomic force, making ~~complicate~~ complicated the overall apparatus structure.

Paragraph beginning at line 10 of page 6 has been amended as follows:

Meanwhile, near-field light mentioned above abruptly attenuates in a z direction provided that a line connecting between the probe and recording medium is defined as a z direction. Accordingly, if the probe ~~if~~ deviates in position ~~toward~~ in the z direction from the recording medium surface

due to a certain cause, this induces a variation in the output signal. The presence or absence of a data mark on the recording medium increases and decreases the output signal. Thus, there has been a problem that, when there is a change in the output signal, it cannot be reliably determined whether ~~that~~ the change is due to the presence of the data mark or due to deviation in probe position in the z direction.

Paragraph beginning at line 23 of page 14 has been amended as follows:

Also, a recording apparatus according to the invention is, in a recording apparatus for reproducing information recorded on a recording medium by utilizing near-field light, the recording apparatus, comprising: an aperture element having a microscopic aperture to create or scatter near-field light; a light illuminating means for illuminating illumination light mixed with two different ~~two of~~ modulation frequency light to the recording medium such that near-field light is created on a surface of the recording medium; a first light detecting means for scattering the created near-field light by the microscopic aperture and detecting propagation light having one of the two modulation frequencies, turning this into a reproduced signal; a second light detecting means for scattering the created near-field light by the microscopic

aperture and detecting propagation light having the other of the two modulation frequencies, turning this into a control signal; a control means for controlling a spacing between the aperture element and the recording medium based on the control signal.

Paragraph beginning at line 3 of page 16 has been amended as follows:

Also, a recording apparatus according to the invention is, in a recording apparatus for reproducing or recording information recorded on a recording medium by utilizing near-field light, the recording apparatus, comprising: an aperture element having a microscopic aperture to create or scatter near-field light; a light illuminating/recording means for illuminating illumination light mixed with two different ~~two~~ modulation frequencies to the microscopic aperture to create near-field light in the microscopic aperture, and recording information to the recording medium through illumination light having one of at least the two modulation frequencies; a first light detecting means for scattering the created near-field light by the microscopic aperture and detecting propagation light having one of the two modulation frequencies, turning this into a reproduced signal; a second light detecting means for

scattering the created near-field light by the microscopic aperture and detecting propagation light having the other of the two modulation frequencies, turning this into a control signal; a control means for controlling a spacing between the aperture element and the recording medium based on the control signal.

Paragraph beginning at line 23 of page 48 has been amended as follows:

Also, because the probe 231 does not require to have a microscopic aperture at its tip, the probe is [facilitated] simpler to ~~make~~ produce.

Paragraph beginning at line 2 of page 49 has been amended as follows:

In the present embodiment, a flat-surface probe 237 was utilized as a near-field probe which has an inverted conical hole formed therethrough to provide a microscopic aperture as stated before at the top. Fig. 12 shows a schematic structure of an information reproducing apparatus according to Embodiment 5. The present embodiment is similar to Embodiment 3 in apparatus general structure, operating mechanism and signal processing circuit, detailed explanations being omitted. The flat-surface probe according to the

present embodiment is fabricated by a silicon process generally used in the conventional semiconductor manufacturing technology. The light receiving element 233 comprises a photodiode or the like integrated on a silicon wafer. A silicon substrate can be formed with an inverted conical hole by anisotropic etching of silicon, on an inner surface of which Al is film-formed as a reflection film 236 to prevent light from coming incident on the silicon substrate and being absorbed by the silicon substrate. Input light 232 introduced through a lens system or optical waveguide (not shown) produces near-field light 205 from a microscopic aperture 235 formed at a tip of the probe. The scattering light 208 caused resulting from interaction between this and a data mark 234 is detected by the light receiving element 233. Because the z direction dependency of near-field light is theoretically the same as that of Embodiment 3, the probe can be controlled in-axis position by the same way as Embodiment 3 without giving mechanical vibration. At the same time, information reproduction is possible from the ~~according~~ recording medium 206.

Paragraph beginning at line 8 of page 52 has been amended as follows:

Fig. 14 is a block diagram showing a schematic structure of an information reproducing apparatus according to

Embodiment 7 ~~f~~ of the invention. This embodiment is different from Fig. 6 in that a light source 241 uses an LED. The LED possesses a finite width of an output light wavelength (typically, a wavelength half width of approximately 15 nm for a light source with a wavelength of 800 nm), differently from a gas laser. As explained in Embodiment 3, the attenuation of near-field light in the z direction is strongly dependent upon wavelength. In order to accurately control the probe position, there is a necessity to accurately select two wavelengths of light to be utilized. The use of an acoustic optical element 202 selects and ~~switch~~ switches in time two particular ~~two~~ wavelengths from the light of the LED light source having a broad range of wavelengths. This ~~resulted~~ results in switching between two wavelengths of light input ~~inputted~~ to the near-field light probe 203, and thereafter the probe ~~could~~ can be controlled in z direction position by the same operation as in Embodiment 3. This ~~increased~~ increases the kinds of light sources ~~to~~ that can be utilized, and makes it possible to select light of an optimal wavelength ~~light~~ for probe position control. Also, the LED light source, as an incoherent light source, ~~could~~ can remove noise components ~~to be~~ that occur when ~~occurred for a case~~ using a coherent light source, such as speckle.

Paragraph beginning at line 5 of page 68 has been amended as follows:

Consequently, it is possible to reproduce the high density information recorded on the recording medium 10 and hold a proximity state for the aperture element 101 and the recording medium 10, both through utilization of near-field light. Thus, the recording apparatus is simplified in structure. Further, a reproducing probe (flat-surface probe) without having a sharpened tip can be used in a recording apparatus. Furthermore, independently formed in the aperture element 101 are the microscopic aperture 102 used for reproducing information recorded ont he recording medium ~~3~~ 10 and the microscopic aperture 103 used for conducting proximity control of the aperture element 101. Consequently, information reproduction and aperture element proximity control of the aperture element 101. Consequently, information reproduction and aperture element proximity control are possible with positiveness and reliability. Also, because the illumination mode is adopted for detecting near-field light, the comparatively increased intensity of laser light to be introduced to the microscopic aperture makes possible to create intense near-field light, enabling localized thermal energy illumination. Therefore, besides reproduction of information recorded high in density,

recording information with density is possible due to providing thermal energy.

Paragraph beginning at line 9 of page 74 has been amended as follows:

Next, explanation will be made on a recording apparatus according to Embodiment 11. The recording apparatus according to Embodiment 11 is characterized in that the effect given by the step between the two ~~aperture elements~~ microscopic apertures of the recording apparatus according to Embodiment 10 is achieved by finely vibrate an aperture element having one microscopic aperture.